



The New Teacher's Toolbox

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Teaching in the Digital Age

I went to school in the overhead projector age, and I was a senior in high school the first time one of my teachers used a PowerPoint presentation in class. I remember him using flashy transitions to make the words move on the screen, but it kept our attention the way no transparency ever could. I also remember some teachers scoffing at this new medium that they knew relatively little about. More traditional ways of teaching were still in favor, and there was no guarantee that student learning would be measurably affected by this technology, or so they argued.

By the time college rolled around, all of my professors were using PowerPoint. We turned in biology lab reports through a website, completed weekly chemistry problems online, and even used Dreamweaver to develop websites in an educational technology course. My friends were all using this new social networking site called *Facebook*, and by graduation, the full force of this technological revolution had become apparent.

As scientists, we are keenly aware of technology's effect on discovery—imagine our field without digital microscopy, satellites, or the internet. As more of our world conforms to this digital age, education faces a similar renaissance. New technologies are engaging today's students the way PowerPoint did a decade ago. The pressure to go digital can seem especially overwhelming to new teachers, but fear not! Teaching in the digital age is easier than you think. Here are some tips to help get you started.

Start a course website. A course website is a great place to compile resources that your students can use every day, and it doesn't take much time to create one. I keep mine up-to-date with a current unit schedule so students can see what they have missed when absent and parents can see what we are working on in class. For my chemistry classes, I post solved homework problems as PDFs so students can check their own answers. This allows them to follow along with my work if they are struggling at home and saves valuable class time, as I am able to focus on trouble spots instead of reviewing every problem. I also post links to helpful websites—interactive periodic tables, references

for writing lab reports, molecular animations, and relevant current events.

Facebook is not your friend. As much fun as this social networking site can be, it has led to the embarrassment and downfall of many new teachers. If you cannot cut the Facebook cord completely, there are two simple rules to remember. First, your students are not your friends. You can choose to accept their friend requests after they graduate, but ignore them while they are still in your classes. As for your page's content, use the "SPP rule." For any picture, wall post, or personal gem on your page, ask yourself whether you would you be comfortable sharing it with your students (s), their parents (p), and your principal (p). If not, take it down. With privacy settings constantly changing and teenagers becoming more web savvy by the day, nothing is really private anymore.

Take a webquest. A simple web search may find hundreds of websites for any given topic; a "webquest" is a way to help your students navigate the best ones. Develop a set of questions that accompany three to five good websites about a particular topic. Choose sites from credible sources with colorful images, good animations, and engaging side links. You have significant flexibility here for guiding students' discovery to specific outcomes,

and along the way, they will find engaging content to pique their interest and curiosity.

Get creative with projects. Use your students' tech-savvy skills to your advantage by tweaking your projects to include a digital option. My chemistry students develop YouTube music videos for final exam topics, and my marine biology students create a "Critter Twitter" to discuss the behavior and ecology of a particular marine animal. Projects such as these give you an opportunity to use varied assessments and give your students a chance to get creative in a medium they are comfortable with.

If you can embrace the digital age, you will find it has much to offer both you and your students.

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